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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,707	10/18/2003	Jeremy Moore	81044475	2197

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FORD GLOBAL TECHNOLOGIES, LLC.
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DEARBORN, MI 48126

EXAMINER

TRAN, DIEM T

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/688,707

Applicant(s)

MOORE ET AL.

Examiner

Diem Tran

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6,8-10,12-14 and 16-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 and 3 is/are allowed.
- 6) ☒ Claim(s) 4-6,8-10,12-14,16-19,22,24-26 and 29 is/are rejected.
- 7) ☒ Claim(s) 20,21,23,27,28,30 and 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

-This office action is in response to the amendment filed on 1/6/04. In this amendment, claims 1, 7, 11, 15 have been canceled. Overall, claims 2-6, 8-10, 12-14, 16-31 are pending in this application. Upon further search and consideration, the examiner has withdrawn the indicated patentable subject matter of claims 4-6, 8-10, 12-14, 16-19, 22; therefore, a new non-final rejection is set forth below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 24-26, 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaiser et al. (US Patent 5,979,158).

Regarding claims 24-25, 29, Kaiser discloses a method for reducing exhaust emissions during cold start of an internal combustion engine, the engine being coupled to a starter motor and an exhaust gas treatment device (10) (see Figure 1), comprising:

supplying rotational energy to the engine at rest by the starter motor (see col. 3, lines 61-67); providing fuel to the engine when an engine rotational speed substantially exceeds an idle speed; and continuing to operate both the engine and the starter motor after fuel is provided to the engine (see col. 5, lines 29-34).

Regarding claim 26, in Kaiser, said operating both the engine and the starter motor has both the engine and the starter motor providing mechanical power (the operation of the starter

motor and engine in Kaiser turns a crankshaft in the engine and thus providing mechanical powers to the engine).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6, 8-10, 12-14, 16-19, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaiser et al. (US Patent 5,979,158) in view of Nohira et al. (US Patent 3,895,541).

Regarding claims 6, 14, Kaiser discloses a method for reducing exhaust emissions during cold start of an internal combustion engine, the engine being coupled to a starter motor and an exhaust gas treatment device (3), comprising providing assist to the engine by the starter motor to meet a demanded power during cold start (see col. 3, lines 64-67, col. 4, lines 1-3) (during cold start, the temperature of the exhaust gas treatment system is less than an operating temperature of the exhaust gas treatment device); however, fails to disclose delaying a shifting operation of an automatic transmission coupled to the internal combustion engine. Nohira teaches delaying a shifting operation of an automatic transmission coupled to the internal combustion engine during cold start (see col. 6, lines 30-40) to increase the exhaust gas temperature to a light off temperature at which the catalyst provides a sufficient activity for reducing pollutants of the exhaust gas.

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Nohira in the Kaiser device since the use thereof would have reduced harmful emissions during cold start.

Regarding claims 4, 12, Kaiser further discloses retarding spark timing of the engine (see col. 4, lines 21-24).

Regarding claims 5, 13, Kaiser further discloses heating the exhaust gas treatment device by electric heater coupled to the exhaust gas treatment device (see col. 4, lines 20-21, 24-28).

Regarding claims 10, 18, Kaiser discloses a method for reducing exhaust emissions during cold start of an internal combustion engine, the engine being coupled to a starter motor (1D) and an exhaust gas treatment device (3), comprising supplying fuel to the internal combustion engine when an engine rotational speed substantially exceeds idle speed (see col. 1, lines 55-60, col. 2, lines 1-4); however, fails to disclose delaying a shifting operation of an automatic transmission coupled to the internal combustion engine. Nohira teaches delaying a shifting operation of an automatic transmission coupled to the internal combustion engine during cold start (see col. 6, lines 30-40) to increase the exhaust gas temperature to a light off temperature at which the catalyst provides a sufficient activity for reducing pollutants of the exhaust gas.

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Nohira in the Kaiser device since the use thereof would have reduced harmful emissions during cold start.

Regarding claims 8, 16, Kaiser further discloses retarding spark timing of the engine (see col. 4, lines 21-24).

Regarding claims 9, 17, Kaiser further discloses heating the exhaust gas treatment device by electric heater coupled to the exhaust gas treatment device (see col. 4, lines 20-21, 24-28).

Regarding claims 19, 22, Kaiser further discloses that said starter motor is an integrated starter generator (see col. 3, lines 66-67, col. 4, lines 1-3)

Allowable Subject Matter

Claims 2, 3 are allowed.

Claims 20, 21, 23, 27, 28, 30, 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed on 1/6/05 have been fully considered but they are moot in view of the new ground(s) of rejection. The Applicant argued that the Kaiser reference fails to disclose "continuing to operate both the engine and the starter motor after fuel is provided to the engine". The Examiner respectfully disagrees, since the Kaiser reference discloses that the starter motor drives the engine with deactivated ignition and deactivated fuel injection to an engine idle speed of 1500 rpm for 3 seconds and then maintains at this speed with fuel injection activated for the next 4 seconds (see col. 5, lines 23-34). The phrase "whereupon" in Kaiser is defined as "on which" in a dictionary; thus, the phrase "whereupon" clearly refers to the 4 seconds time interval on which fuel is injected in the engine. Therefore, Kaiser discloses continuing to operate both the engine and the starter motor after fuel is provided to the engine.

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (571) 272-4866. The examiner can normally be reached on Monday -Friday from 8:30 a.m.- 5:00p.m.

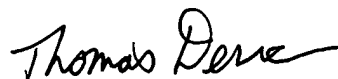
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (571) 272-4859. The fax number for this group is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 800-786-9199 (toll-free).

DT
February 7, 2005



Diem Tran
Patent Examiner
Art unit 3748



THOMAS DENION
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